# High speed thermal printhead (300 dots / inch)

## SE3004-DC90A

High speed, high quality, and high durability are achieved by using step free structure with high performance partial glaze and highly conductive overcoat layer. SE300*-DC90A series are lined up which can accommodate with all types of barcode labeling printers from Direct to Thermal Transfer, normal to high speed (over 300mm/s).

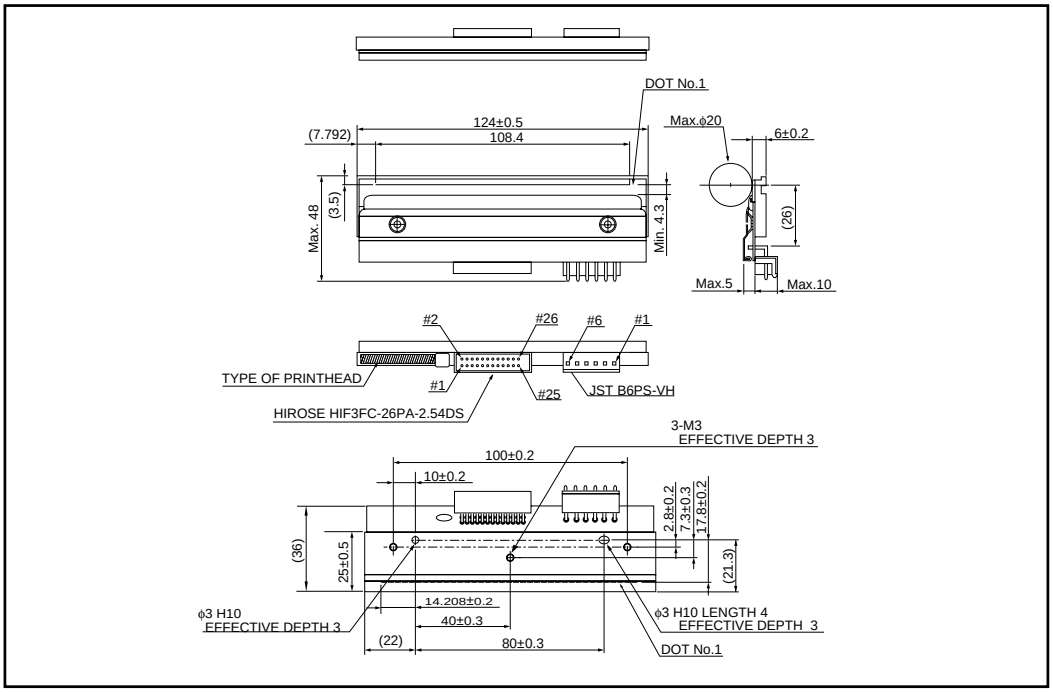
**●Applications**

Barcode printers
Label printers
Packaging printers
ATM
Ticket printers
Scale printers

**●Features**

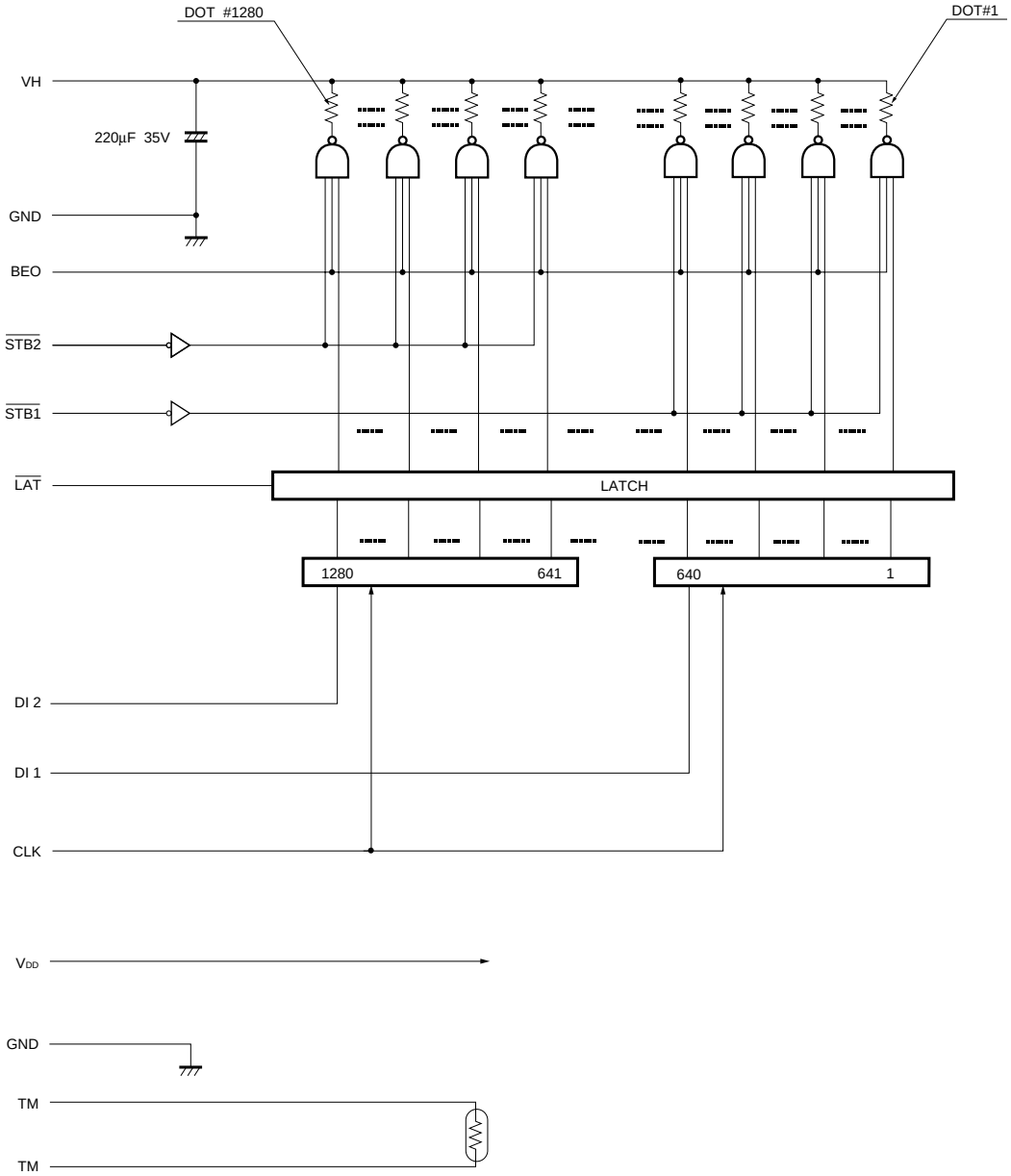
1) ROHM new technology “STEP FREE” structure will provide, high corrosion resistance, better resistance against scratching damage, high efficiency.
2) Standard glazed components to accommodate thick paper.
3) High speed clock to facilitate external heat history control.
4) Using a hard conductive film as a protective film on the heating element offers excellent resistance to electrostatic damage.

**●External dimensions** (Unit : mm)




Note: No heat history control function inside the thermal printhead. External heat history control is required for high speed printing.

●**Equivalent circuit**




| DI No. | DOT No. |
|---|---|
| DI 2 | 1280 to 641 |
| DI 1 | 640 to 1 |

| $\overline{STB}$ No. | DOT No. |
|---|---|
| $\overline{STB2}$ | 1280 to 641 |
| $\overline{STB1}$ | 640 to 1 |

**●Pin assignments**

HIROSE

| No. | Circuit | No. | Circuit |
|---|---|---|---|
| 1 | $V_{DD}$ | 2 | BEO |
| 3 | GND | 4 | DI2 |
| 5 | N.C. | 6 | CLK |
| 7 | $\overline{LAT}$ | 8 | GND |
| 9 | GND | 10 | DI1 |
| 11 | N.C. | 12 | GND |
| 13 | $V_{DD}$ | 14 | $\overline{STB2}$ |
| 15 | $\overline{STB1}$ | 16 | TM |
| 17 | TM | 18 | SENS1 |
| 19 | SENS2 | 20 | SENS3 |

JST

| No. | Circuit |
|---|---|
| 1 | VH |
| 2 | VH |
| 3 | VH |
| 4 | GND |
| 5 | GND |
| 6 | GND |

**●Characteristics**

| Parameter | Symbol | Typical | Unit |
|---|---|---|---|
| Effective printing width | – | 108.4 | mm |
| Dot pitch | – | 0.0847 | mm |
| Total dot number | – | 1280 | dots |
| Average resistance value | Rave | 850 | Ω |
| Applied voltage | $V_H$ | 24 | V |
| Applied power | $P_O$ | 0.57 | W / dot |
| Print cycle | SLT | 0.42 | ms |
| Maximum number of dots energized simultaneously | – | 1280 | dots |
| Maximum clock frequency | – | 10 | MHz |
| Maximum roller diameter | – | $\phi$20 | mm |
| Running life / pulse life | – | 150 / $10^8$ | km / pulses |
| Operating temperature | – | 5 to 45 | °C |

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